

**CLAIMS:**

We claim:

- 1     1. A database access system comprising:  
2                 a universal database connectivity driver having a first exposed interface through  
3                 which access to a database server can be provided;  
4                 a database proxy driver registered with said universal database connectivity  
5                 driver, said database proxy driver having a second exposed interface which conforms  
6                 with said first exposed interface of said universal database connectivity driver, said  
7                 database proxy driver having a configuration for invoking at least one auxiliary task in  
8                 addition to providing access to said database server through said first exposed  
9                 interface of said universal database connectivity driver; and,  
10                 a database driven application programmatically linked to said database proxy  
11                 driver.
- 1     2. The database access system of claim 1, wherein each of said universal  
2                 database connectivity driver, database proxy driver and database driven application are  
3                 disposed in an edge device in a computer communications network.
- 1     3. The database access system of claim 2, wherein said auxiliary task is load  
2                 balancing.
- 1     4. The database access system of claim 1, wherein said auxiliary task is caching.

1       5. The database access system of claim 1, further comprising:  
2              a log file of data request meta-information; and,  
3              an application analyzer configured to tune operation of said auxiliary task based  
4              upon said meta-information.

1       6. A database access method, the method comprising:  
2              receiving a database connectivity request through a corresponding first exposed  
3              database connectivity method from a database driven application;  
4              forwarding said database connectivity request to an underlying database  
5              connectivity driver through a corresponding second exposed method having a method  
6              prototype which matches a method prototype of said first exposed database  
7              connectivity method; and,  
8              performing at least one auxiliary task in addition to forwarding said database  
9              connectivity request.

1       7. The database access method of claim 6, further comprising performing each of  
2              the receiving, forwarding and performing steps in an edge device.

1       8. The database access method of claim 7, wherein said performing step  
2              comprises performing a load balancing task.

1       9. The database access method of claim 7, wherein said performing step  
2              comprises performing a database caching task.

1       10. The database access method of claim 6, further comprising:  
2           collecting meta-data for each received database connectivity request; and,  
3           modifying operation of said auxiliary task based upon an analysis of said  
4       collected meta-data.

1       11. The database access method of claim 10, wherein said modifying step  
2       comprises generating rules which direct database connectivity requests to particular  
3       instances of a database server which are most likely to respond quickly based upon  
4       database latency patterns inherent in said collected meta-data.

1       12. The database access method of claim 11, wherein said modifying step  
2       comprises selectively caching result sets in a database cache based upon request  
3       frequency patterns inherent in said collected meta-data.

1       13. A machine readable storage having stored thereon a computer program for  
2       providing database access, the computer program comprising a routine set of  
3       instructions for causing the machine to perform the steps of:  
4           receiving a database connectivity request through a corresponding first exposed  
5       database connectivity method from a database driven application;  
6           forwarding said database connectivity request to an underlying database  
7       connectivity driver through a corresponding second exposed method having a method

8 prototype which matches a method prototype of said first exposed database

9 connectivity method; and,

10 performing at least one auxiliary task in addition to forwarding said database

11 connectivity request.

14. The machine readable storage of claim 13, further comprising performing each of

2 the receiving, forwarding and performing steps in an edge device.

15. The machine readable storage of claim 14, wherein said performing step

2 comprises performing a load balancing task.

16. The machine readable storage of claim 14, wherein said performing step

2 comprises performing a database caching task.

17. The machine readable storage of claim 13, further comprising:

2 collecting meta-data for each received database connectivity request; and,

3 modifying operation of said auxiliary task based upon an analysis of said

4 collected meta-data.

18. The machine readable storage of claim 17, wherein said modifying step

2 comprises generating rules which direct database connectivity requests to particular

3 instances of a database server which are most likely to respond quickly based upon

4 database latency patterns inherent in said collected meta-data.

1       19. The machine readable storage access method of claim 17, wherein said  
2 modifying step comprises selectively caching result sets in a database cache based  
3 upon request frequency patterns inherent in said collected meta-data.

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